call number rn, of the telephone communication network FEN or the telephone terminal FE connected to it. The gateway GW sets up a communication relation KB to the gatekeeper GK of the Internet INT. In the gatekeeper GK, a check is made whether the Internet terminal IKE determined by the call number rn is allowed to use the Voice over Internet function VoIP. If there is no authorization for the called Internet terminal IKE - indicated by N in Figure 2 -, the gatekeeper GK transmits a busy information item BUSY via the gateway GW and the telephone communication network FEN to the telephone terminal FE affected - indicated by arrows designated by BUSY in Figure 2. If there is an authorization for the Voice over Internet function VoIP - indicated by a Y in Figure 2 - , a check is then made in the gatekeeper GK whether the called Internet terminal IKE is currently conducting an Internet session. If the called Internet terminal IKE is not conducting an Internet session, a busy information item BUSY is transmitted via the gateway GW and the telephone communication network FEN to the telephone terminal FE - indicated by arrows designated by BUSY in Figure 2. If the called Internet terminal IKE is in an Internet session - indicated by a Y in Figure 2 - a Voice over Internet connection is set up with the aid of the gatekeeper GK to the Internet terminal IKE affected - indicated by an arrow designated by CONNECT in Figure 2. This connection set-up sets up a voice connection SPV between the telephone terminal FE and the Internet terminal IKE determined by the call number rn, the voice connection SPV being implemented by a dedicated voice connection between the gateway GW and the telephone terminal FE and as a Voice over Internet connection between the gateway GW and the Internet terminal IKE.

In the Claims:

What is claimed is

1. A method for switching voice traffic relations between telephone terminals of a telephone communication network and Internet terminals, comprising:

performing physical and protocol-related conversion of the voice traffic relations by a gateway connected to the Internet and the telephone communication network; and

setting a call diversion in the telephone communication network by one of a first telephone terminal before an Internet session or an associated Internet terminal during an Internet session, in such a manner that a connection setup for the voice traffic relation, initiated by a second telephone terminal to the telephone terminal, is diverted to the associated Internet terminal.

2. The method as claimed in claim 1, wherein a uniform call number is provided for the telephone and Internet terminals.

3. The method as claimed in claim 1, wherein the voice traffic relation is implemented by a Voice over Internet function in the Internet.

4. The method as claimed in claim 1, wherein the call diversion is set by the Internet terminal by signaling via the gateway to the telephone communication network, the signaling being converted in the gateway.

5. The method as claimed in claim 1, wherein the call diversion is set by the Internet terminal by signaling via a subscriber server and an intelligent communication network connected to the former and to the telephone communication network.

6. The method as claimed in claim 1, wherein the call diversion is set by the Internet terminal by signaling via a subscriber server and a packet switching communication network connected to the former and the telephone communication network.

7. The method as claimed in claim 5, wherein the signaling between the respective Internet terminal and the subscriber server is implemented by Internet signaling, the Internet signaling is converted into signaling in one of the intelligent communication network or packet switching communication network in the subscriber server, and signaling is adapted to the signaling in the telephone communication network.

8. The method as claimed in claim 1, wherein a diverted connection setup for a voice traffic relation is switched to the relevant Internet terminal with the aid of the Voice over Internet function in the Internet.

9. The method as claimed in claim 8, wherein a uniform destination call number of the connection setup for a voice traffic relation, diverted into the Internet, is converted into an Internet-related Internet address by a call number server in the Internet.

10. The method as claimed in claim 1, wherein the call diversion is set with the aid of a communication system-related call diversion routine in a communication system of the telephone communication network.

11. The method as claimed in claim 1, wherein the call diversion is effected by one of the associated telephone terminal or the Internet terminal with the aid of a modem function before an Internet session of an Internet terminal.

12. The method as claimed in claim 11, wherein a modem function effecting the connection-set-up and the data transmission and representing a telephone terminal is associated with an Internet terminal implemented by a personal computer.

13. The method as claimed in claim 1, wherein the Internet terminal is implemented by a personal computer and is associated with a telephone terminal.

14. The method as claimed in claim 1, wherein the connection set-up of a telephone terminal is diverted to the gateway due to the call diversion set.

15. A communication system for switching voice traffic relations between a telephone terminal of a telephone communication network and an Internet terminal, which is switched to an Internet via the telephone communication network, comprising:

an access device configured for access from the telephone communication network to the Internet;

a gateway connected to the telephone communication network and the Internet for physical and procedural conversion of voice traffic relations witched via the telephone communication network and the Internet; and

a signaling device provided in the Internet to set a call diversion in the telephone communication network for an Internet terminal which is coupled to the Internet via the telephone communication network.

16. The communication system as claimed in claim 15, further comprising a subscriber server configured for connection to the telephone communication network via an intelligent network and provided in the Internet such that the signaling device sets up a communication relation with the Internet terminal intending a call diversion and the telephone communication network provided in the subscriber server the Internet terminal configured to set a call diversion in the telephone communication network by signaling via the subscriber server.

17. The communication arrangement as claimed in claim 15, wherein the signaling device for setting up a communication relation between an Internet terminal and the subscriber server are designed with web page orientation.

18. The communication arrangement as claimed in claim 15, wherein a call number server is provided for setting and storing Internet-related Internet addresses by which Internet terminals can be currently reached.

19. The communication arrangement as claimed in claim 18, wherein the Internet addresses can be modified by a respective Internet terminal, as a result of which a call diversion to at least one of other Internet terminals, to a dialog device and a memory device is set.